

1079-55-271

Maciej Niebrzydowski* (mniebrz@gmail.com) and **Jozef H. Przytycki.** *Tutte magmas.* Preliminary report.

By a Tutte magma we understand a magma $\mathcal{A} = (A, *)$ that satisfies entropic relations $(x * y) * (z * w) = (x * z) * (y * w)$ for some of its elements x, y, z, w . Using certain Tutte magmas that additionally satisfy relations derived from the second Reidemeister move, we obtain invariants of links. Motivated by a bijection between signed plane graphs and link diagrams, we define Tutte magma invariants for signed graphs for any magma $(M, *)$ with ordered generators $a_1, a_2, \dots, a_n, \dots$ (not necessarily different). (Received January 16, 2012)